

SMART-EC – roof fan



SMART-EC-1300



SMART-EC-3000

Application

SMART-EC fans have been developed for general ventilation of buildings and are meant for forwarding the dry air of maximum temperature $+60^{\circ}\text{C}$ and dustiness not exceeding $0,3 \text{ g/m}^3$, without viscous, aggressive impurities or substances that could cause explosion hazard. The SMART-EC family of fans, as a series of four sizes of motor rates, ranging from $0,275 \text{ kW}$ up to 1 kW and maximum volume flow $6200 \text{ m}^3/\text{h}$. The appliances meet the requirements of the ErP 2009/125/EC Directive. SMART-EC fans are equipped with high-tech electronic commutator motors EC. Their advantage is easy and full range step-less speed adjustment along with high work efficiency.

Structure

SMART-EC series of fans, feature a construction of bent steel profiles, providing a skeleton of streamline- and, at the same, very robust properties. Inside is located a motor with a radial impeller. Lower skeleton is of wire net circumference, as openwork structure through which the air is discharged. Whereas, the upper part of the fan is shielded by a plastic hood. The fan has to be installed on a roof base.

Capacity adjustment

EC electronic commutator motor features a built-in controller and thermal protection. The motor is integrated with the impeller. They are adapted to a step-less speed governing, within the wide operational range of the fan. Rotation applying comes from the connected external controller, using the analogue signal $0-10\text{V}$ (see catalogue card ELECTRICAL ACCESSORIES).

Installing

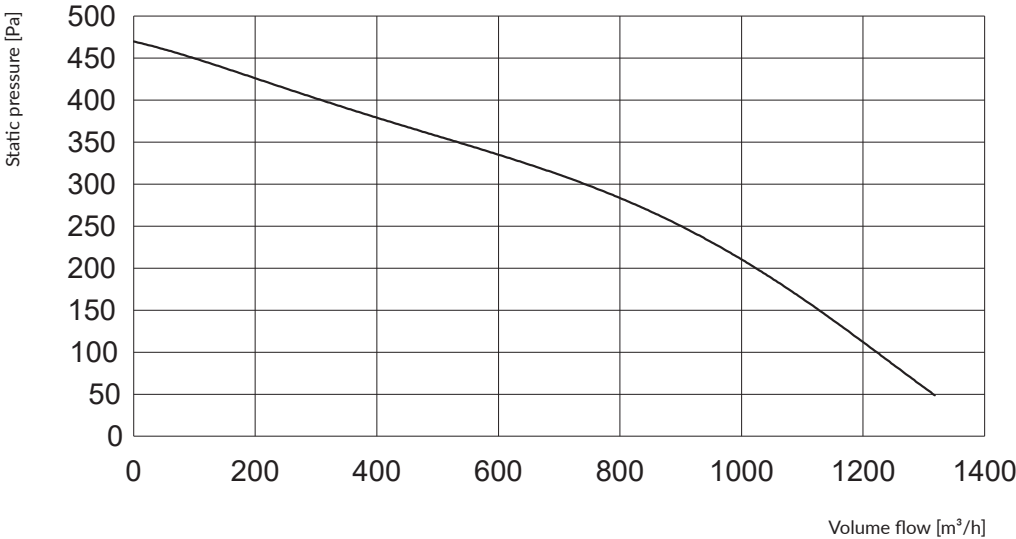
It is recommended to install the SMART-EC fans on sound-absorbing roof bases. A series of bases is adapted to the family of fans. The roof bases are of zinc-coated sheet. Internal surfaces of the base are clad with sound-absorbing lining.

We offer two sorts of sound-absorbing roof bases, varying in the way of installing on the roof:

- TPD-N sound absorbing roof base – are mounted directly on the roof surface. To make installing easy, there are two fastened special (placed rotatably on opposite sides) support profiles – providing levelling of the fan connection flange. These bases are adapted for roofs of slope angle from 0° up to 18° .
- TPDC-N sound absorbing roof base – are installed directly to the pedestal of the ventilation outlet duct. The fan flange has to be screwed to the pedestal.

On demand of Customer, we deliver safety switches do cut off the supply during the installing and maintenance (see catalogue card ELECTRICAL ACCESSORIES).

SMART-EC-1300

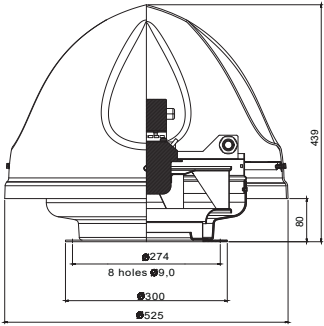


Technical Data

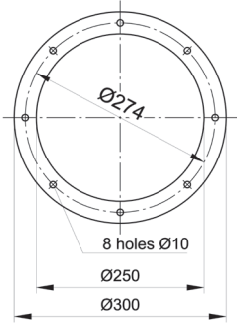
Type	Part No	Synchronous rotations [1/min]	Supply voltage [V/Hz]	Motor rate [W]	Ingress protection IP	Acoustic pressure level [dB(A)]					Max. volume flow [m³/h]	Max. vacuum [Pa]	Weight [kg]
						outlet				inlet			
						1 m	5 m	10 m	15 m	1 m			
SMART-EC-1300	812W80	1925	230/50	275	44	65	51	45	41	65	1300	470	12,3
Roof base TPD-250-N	843P42	-	-	-	-	-	-	-	-	-	-	-	41
Roof base TPDC-250-N	843P52	-	-	-	-	-	-	-	-	-	-	-	46

Dimensions

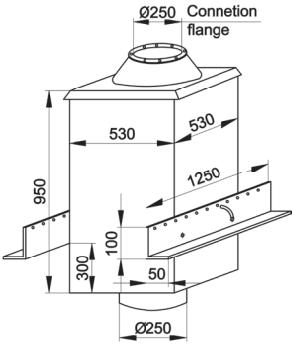
Roof fan
SMART-EC-1300



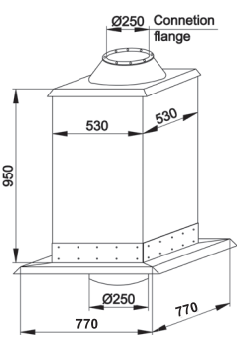
Connection flange



Sound absorbing roof base
TPD-250-N

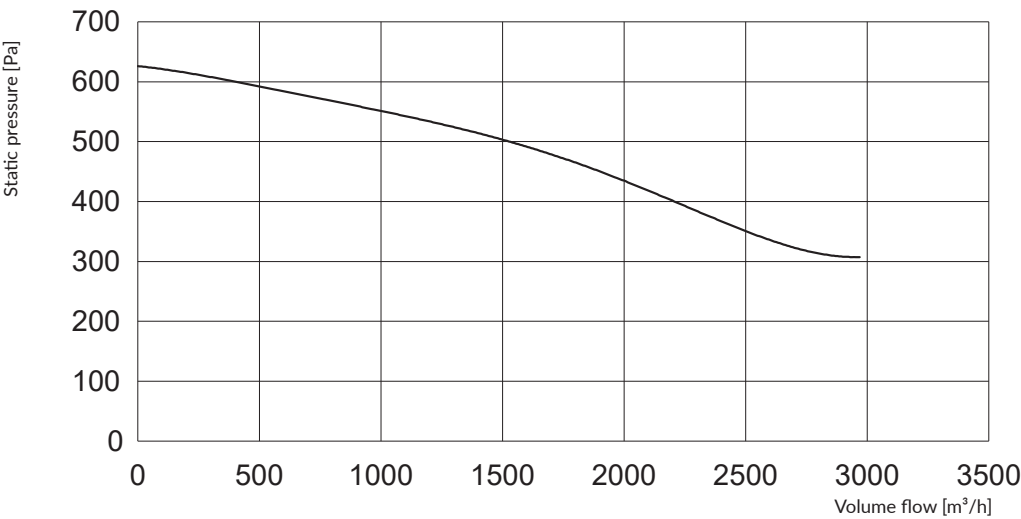


Sound absorbing roof base
TPDC-250-N



NOTE:
The values of the acoustic pressure level have been taken for fans installed on a BII roof bases.
To reduce more the noise level, it is possible to apply a TPD-N, TPDC-N sound-absorbing roof bases or TK silencers.

SMART-EC-3000

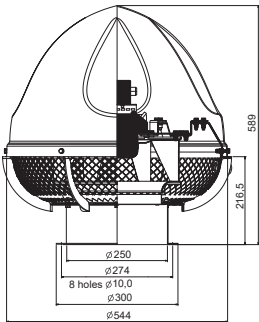


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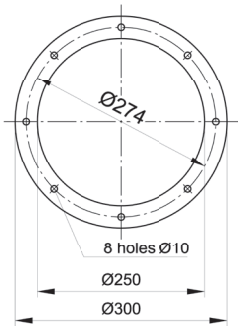
Type	Part No	Synchronous rotations [1/min]	Supply voltage [V/Hz]	Motor rate [W]	Ingress protection IP	Acoustic pressure level [dB(A)]					Max. volume flow [m³/h]	Max. vacuum [Pa]	Weight [kg]
						outlet				inlet			
						1 m	5 m	10 m	15 m	1 m			
SMART-EC-3000	812W81	2200	230/50	320	44	72	58	52	48	69	3000	625	19,7
Roof base TPD-250-N	843P42	-	-	-	-	-	-	-	-	-	-	-	41
Roof base TPDC-250-N	843P52	-	-	-	-	-	-	-	-	-	-	-	46

Dimensions

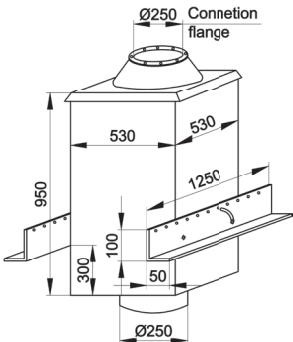
Roof fan
SMART-EC-3000



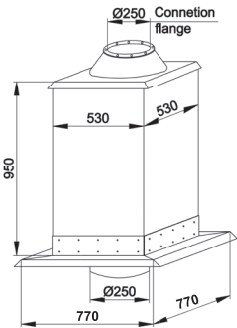
Connection flange



Sound absorbing roof base
TPD-250-N

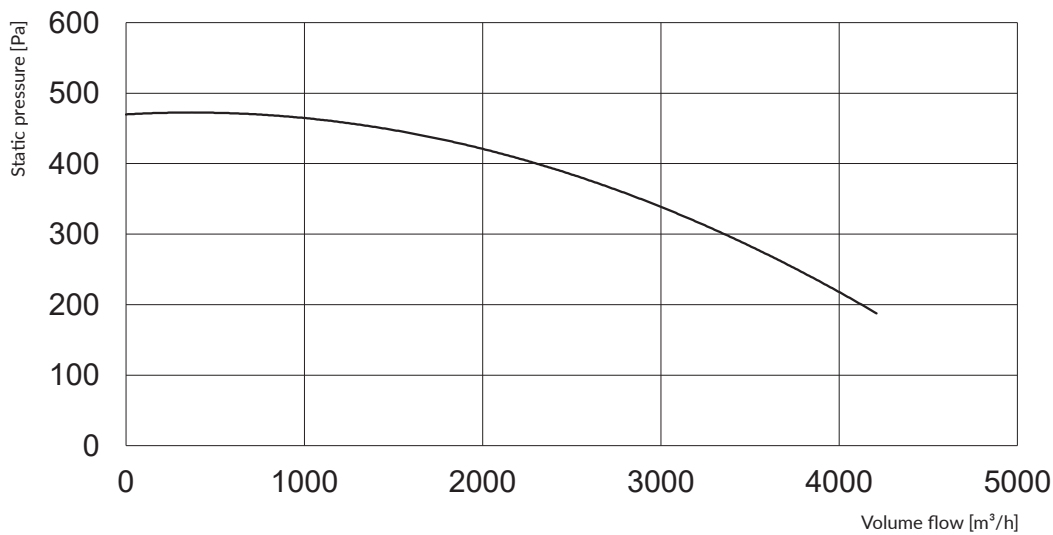


Sound absorbing roof base
TPDC-250-N



NOTE:
The values of the acoustic pressure level have been taken for fans installed on a BII roof bases.
To reduce more the noise level, it is possible to apply a TPD-N, TPDC-N sound-absorbing roof bases or TK silencers.

SMART-EC-4000

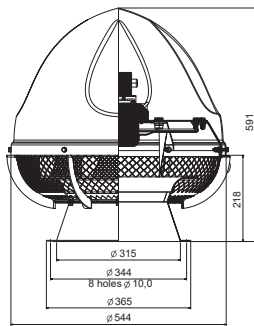


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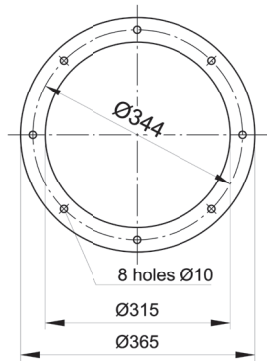
Type	Part No	Synchronous rotations [1/min]	Supply voltage [V/Hz]	Motor rate [W]	Ingress protection IP	Acoustic pressure level [dB(A)]					Max.volum- me flow [m³/h]	Max. vacuum [Pa]	Weight [kg]
						outlet				inlet			
						1 m	5 m	10 m	15 m	1 m			
SMART-EC-4000	812W82	1450	230/50	330	44	70	56	50	45	65	4200	480	22,4
Roof base TPD-315-N	843P43	-	-	-	-	-	-	-	-	-	-	-	41
Roof base TPDC-315-N	843P53	-	-	-	-	-	-	-	-	-	-	-	46

Dimensions

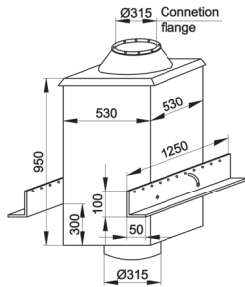
Roof fan
SMART-EC-4000



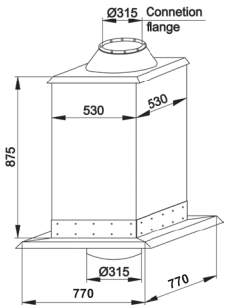
Connection flange



Sound absorbing roof base
TPD-315-N

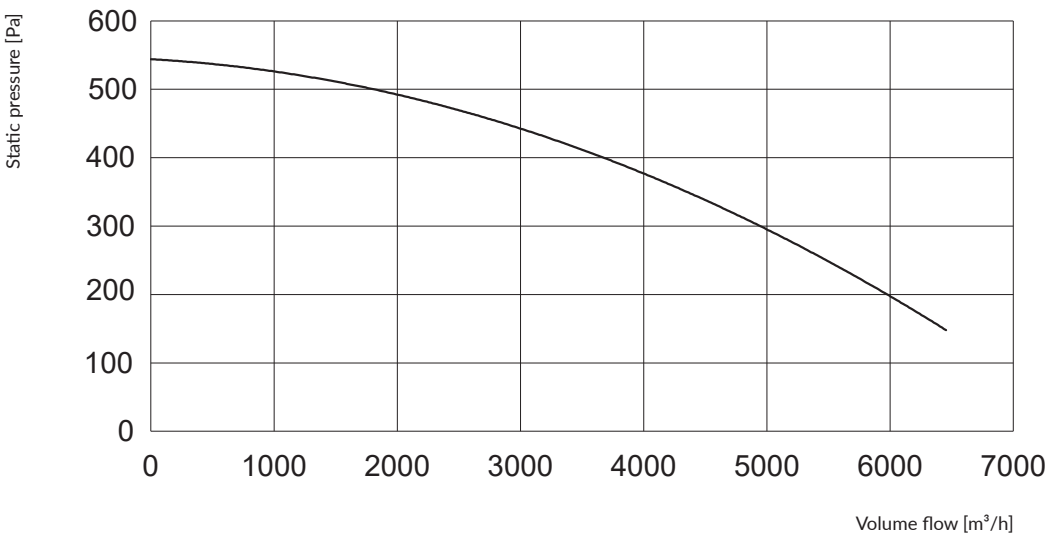


Sound absorbing roof base
TPDC-315-N



NOTE:
The values of the acoustic pressure level have been taken for fans installed on a BII roof bases.
To reduce more the noise level, it is possible to apply a TPD-N, TPDC-N sound-absorbing roof bases or TK silencers.

SMART-EC-6200

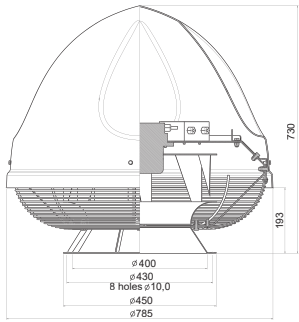


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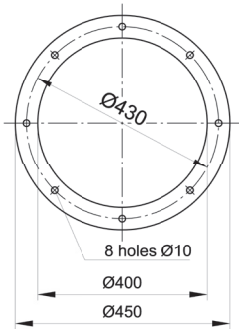
Type	Part No	Synchronous rotations [1/min]	Supply voltage [V/Hz]	Motor rate [W]	Ingress protection IP	Acoustic pressure level [dB(A)]					Max. volume flow [m³/h]	Max. vacuum [Pa]	Weight [kg]
						outlet				inlet			
						1 m	5 m	10 m	15 m				
SMART-EC-6200	812W83	1450	3x400/50	1000	44	74	60	54	50	72	6450	540	47,6
Roof base TPD-400-N	843P44	-	-	-	-	-	-	-	-	-	-	-	75
Roof base TPDC-400-N	843P54	-	-	-	-	-	-	-	-	-	-	-	84

Dimensions

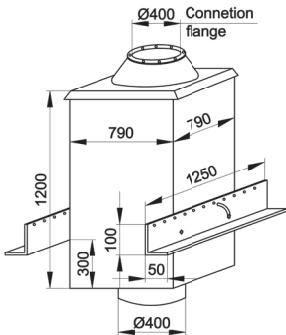
Roof fan
SMART-EC-6200



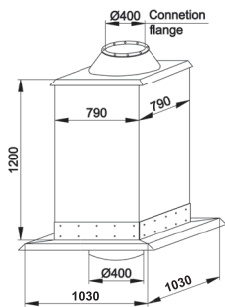
Connection flange



Sound absorbing roof base
TPD-400-N



Sound absorbing roof base
TPDC-400-N



NOTE:
The values of the acoustic pressure level have been taken for fans installed on a BII roof bases.
To reduce more the noise level, it is possible to apply a TPD-N, TPDC-N sound-absorbing roof bases or TK silencers.